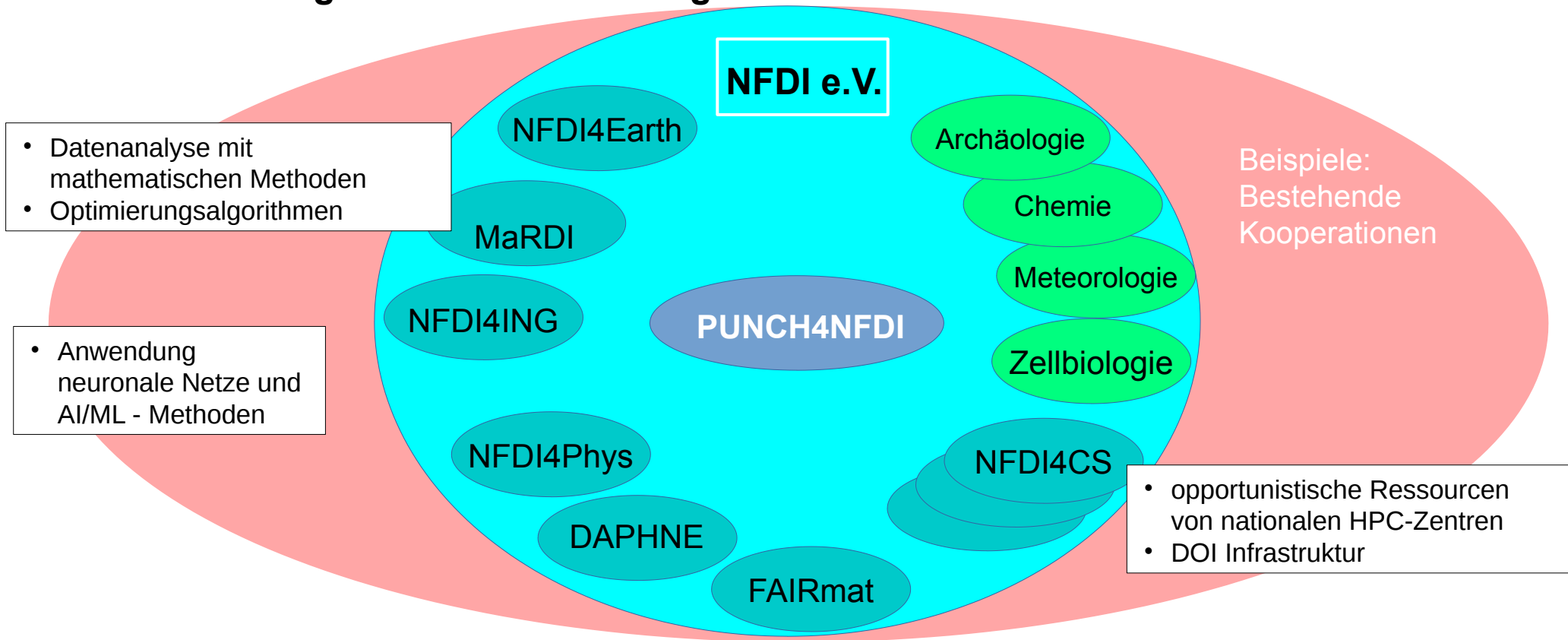


# TA6 Synergies & Services

**LOI:** The different communities that coordinate their efforts within PUNCH4NFDI have developed many aspects of data-management within their specific fields, are intimately linked to international efforts, and contributed to the evolution of global standards. An essential element in the joint NFDI collaboration are the exploitation of synergies and services across different communities. Many aspects of data-management are pursued in collaboration with scientists in other NFDI consortia. The activities of this task area hence target crosscutting activities that foster a mutual exchange of concepts and developments among the PUNCH communities as well as with other consortia and the NFDI in general. Synergies are often closely related to the joint or common use of services being provided to parts of the combined communities or to the NFDI. Special emphasis is placed on a set of core topics (i.e. open data and meta data, big data management, and authentication and authorisation infrastructure). A marketplace will manage the exchange of concepts and solutions within the PUNCH communities and with other NFDI consortia.

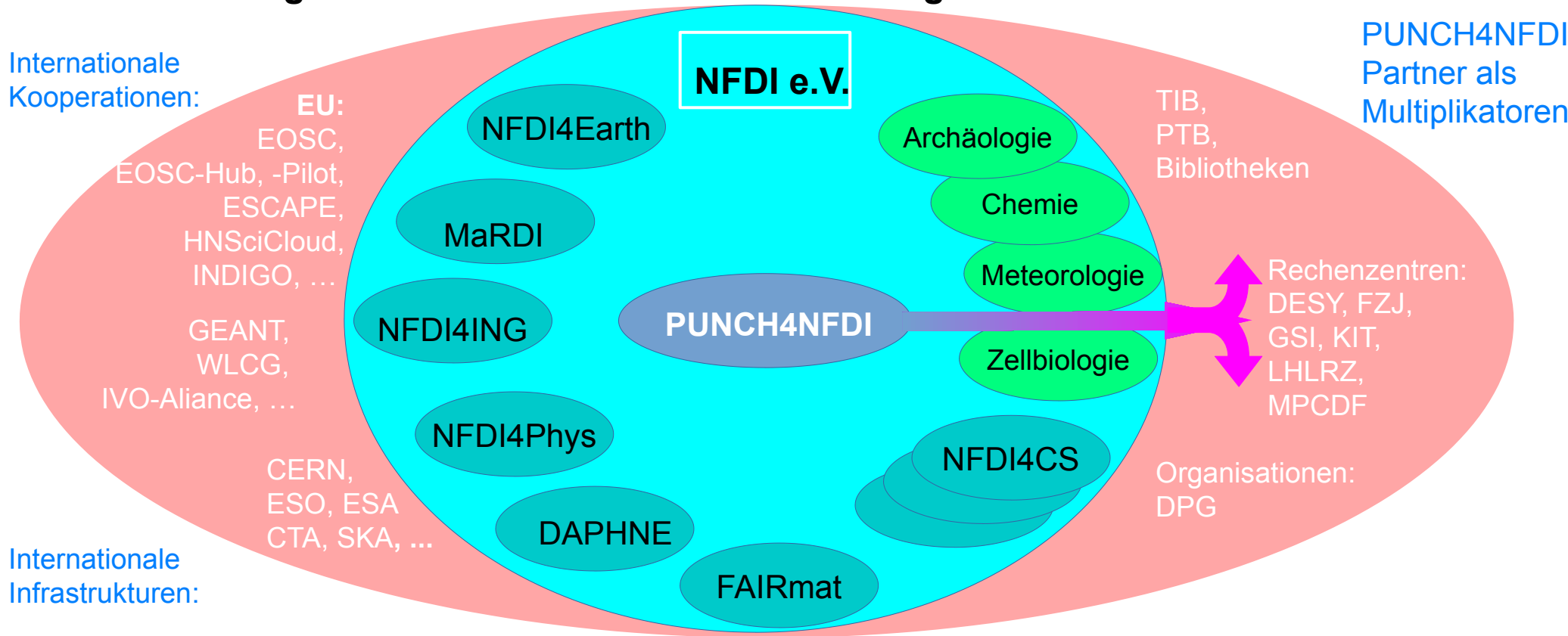
# Synergies & Services

## Wechselwirkungen mit anderen Fachgebieten und NFDI Konsortien



# Synergies & Services

## Wechselwirkungen mit internationalen und fachübergreifenden Partnern



# TA6 Synergies & Services

The PUNCH communities ARE heterogeneous in their efforts and aims. They are more aligned than with others but main aspects (archival research, distributed computing, etc.) have not been in the focus throughout.

→ synergies will be most productive **within** PUNCH.

External links are necessary/useful (politically required) but far less defined than punch- internal links (e.g. which consortia will get funded (for what); how much “synergy” will be promote by the directorate).

TA6 shall also link TAx-teams to the general users in the PUNCH community.

# TA6 Synergies & Services

Extrapolating from interests reported:

## WP 6.1: Marketplace

- Interfaces to NFDI-consortia

- TA (community) -overarching use-cases → see separate talk (Kilian)

## WP 6.2: Authentication and authorisation infrastructure

## WP 6.3: FAIRnes

- Metadata extensions for cross-disciplinary data-reuse

- Open Data: making data publicly accessible

- Publishing data and links to archives/libraries (publishers, libraries,...)

## WP 6.4: Open Source data analysis tools

## WP 6.5: Services in big data management

- Large-scale distributed computing & storage

- Multi-archival cross matches

# TA6 – Synergies and Services Interfaces to NFDI consortia

The marketplace will serve as a platform for the exchange of concepts, services, and joint development activities. It will be a point of contact for the PUNCH community offering or seeking solutions and will facilitate the exchange with other consortia and communities, international data management projects, international research infrastructures, and exchange on cross-cutting topics within the NFDI.

Participants in PUNCH: DPG, PTB, TIB act as multipliers and provide expertise

# TA6 Synergies & Services

Cooperation with other NFDI consortia:

***Demonstrate*** interaction with ~ 5 consortia outside the physics field  
Ideally ~ 2 established ones & ~ 3 new ones  
Candidates: NFDI4ING, MaRDI, HPC, ...

Express interest to collaborate with the NFDIs in physics  
Point out that we already have developed solutions sought for  
DAPHNE, FAIRmat, NFDI4PHYS and are very happy to export

# TA6 – Synergies and Services

## Interfaces to NFDI consortia

Concrete contacts and project have already been established with:

- NFDI4ING ontology metadata : contacts – TIB, KIT + ...
- MaRDI (Mathematical Research Data Initiative): analysis methods and statistical procedures including ML and optimisation algorithms are explored together using mathematician's specific expertise and PUNCH data

Contacts – GSI + ...

- NFDI4HPC: direct communication channel to PRACE (Partnership for Advanced Computing in Europe) and to GCS (Gauss Centre for Supercomputing). NFDI4HPC collects tracing data for the HPC community which can be used by PUNCH to debug workflows. PUNCH will include community related requirements into corresponding standard definitions.

Contacts – GSI + ..

- others.... (contacts still need to be more explicit/specific)



# TA6 Synergies & Services

WP 6.1: Marketplace – with TA1

*Interfaces to NFDI-consortia*

*TA (community) -overarching use-cases*

WP 6.2: Authentication and authorisation infrastructure – with TA2

WP 6.3: FAIRness – with TA2-5

*Metadata extensions for cross-disciplinary data-reuse*

*Open Data: making data publicly accessible*

*Publishing data and links to archives/libraries (publishers, libraries,...)*

WP 6.4: Open Source data analysis tools – with TA3

WP 6.5: Services in big data management – with TA2

*Large-scale distributed computing & storage*

*Multi-archival cross matches*

# TA6 Synergies & Services

tbc !!!

WP 6.1: AIP, GSI, ZAH

WP 6.2: GSI, HTW, TIB

WP 6.3: DESY, GSI, MPIK, TIB, ZAH

WP 6.4: HTW, MPIK, ZAH

WP 6.5: DESY, FZJ, GSI MPIfR, ZAH

Not all who contributed to discussions have signed up yet.

Everybody is invited to join (subscribe to TA6 mailing list)